

=> screen 2067

L1 SCREEN CREATED

=>

Uploading C:\Program Files\Stnexp\Queries\09853732-c.str

L2 STRUCTURE UPLOADED

=> que L2 AND L1

L3 QUE L2 AND L1

=> d

L3 HAS NO ANSWERS

L1 SCR 2067

L2 STR

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

Structure attributes must be viewed using STN Express query preparation.

L3 QUE ABB=ON PLU=ON L2 AND L1

=> s l3

SAMPLE SEARCH INITIATED 13:09:34 FILE 'REGISTRY'

SAMPLE SCREEN SEARCH COMPLETED - 93 TO ITERATE

100.0% PROCESSED 93 ITERATIONS

SEARCH TIME: 00.00.01

27 ANSWERS

FULL FILE PROJECTIONS: ONLINE **COMPLETE**
BATCH **COMPLETE**
PROJECTED ITERATIONS: 1282 TO 2438
PROJECTED ANSWERS: 229 TO 851

L4 27 SEA SSS SAM L2 AND L1

=> d

L4 ANSWER 1 OF 27 REGISTRY COPYRIGHT 2003 ACS

RN 452093-54-8 REGISTRY

CN Bicyclo[2.2.1]hept-5-ene-2-carboxylic acid, 1,1-dimethylethyl ester,
polymer with 2,5-furandione and 1-methyl-1-(5-oxo-4-
oxatricyclo[4.3.1.13,8]undec-1-yl)ethyl 2-methyl-2-propenoate (9CI) (CA
INDEX NAME)

MF (C17 H24 O4 . C12 H18 O2 . C4 H2 O3)x

CI PMS

PCT Polyacrylic, Polyother, Polyvinyl

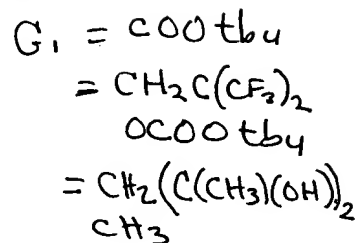
SR CA

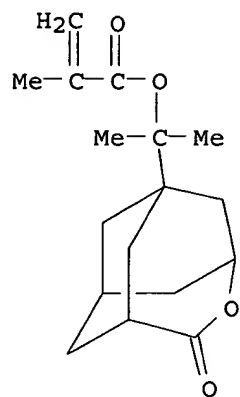
LC STN Files: CA, CAPLUS

CM 1

CRN 452093-13-9

CMF C17 H24 O4

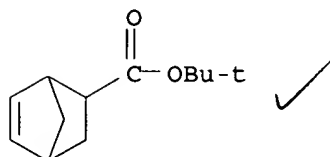




CM 2

CRN 154970-45-3

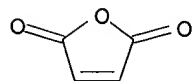
CMF C12 H18 O2



CM 3

CRN 108-31-6

CMF C4 H2 O3



1 REFERENCES IN FILE CA (1962 TO DATE)
1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

=>Testing the current file.... screen

ENTER SCREEN EXPRESSION OR (END):end

=> screen 2067

L5 SCREEN CREATED

=>

Uploading C:\Program Files\Stnexp\Queries\09853732.str

L6 STRUCTURE UPLOADED

=> que L6 AND L5

L7 QUE L6 AND L5

=> d

L7 HAS NO ANSWERS

L5 SCR 2067

L6 STR

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

Structure attributes must be viewed using STN Express query preparation.

L7 QUE ABB=ON PLU=ON L6 AND L5

=> s l7

SAMPLE SEARCH INITIATED 13:10:19 FILE 'REGISTRY'

SAMPLE SCREEN SEARCH COMPLETED - 1082 TO ITERATE

92.4% PROCESSED 1000 ITERATIONS
INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)
SEARCH TIME: 00.00.01

50 ANSWERS

FULL FILE PROJECTIONS: ONLINE **COMPLETE**
BATCH **COMPLETE**

PROJECTED ITERATIONS: 19667 TO 23613

PROJECTED ANSWERS: 16348 TO 19962

L8 50 SEA SSS SAM L6 AND L5

=> s acrylonitrile

L9 10026 ACRYLONITRILE

=> d his

(FILE 'HOME' ENTERED AT 13:08:59 ON 29 JAN 2003)

FILE 'REGISTRY' ENTERED AT 13:09:06 ON 29 JAN 2003

L1 SCREEN 2067

L2 STRUCTURE UPLOADED

L3 QUE L2 AND L1

L4 27 S L3

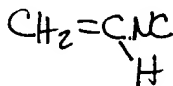
L5 SCREEN 2067

L6 STRUCTURE UPLOADED

L7 QUE L6 AND L5

L8 50 S L7

L9 10026 S ACRYLONITRILE



=> FIL CAPLUS HCAPLUS USPATFUL

COST IN U.S. DOLLARS

SINCE FILE

ENTRY

TOTAL

SESSION

FULL ESTIMATED COST

7.10

7.31

FILE 'CAPLUS' ENTERED AT 13:10:39 ON 29 JAN 2003

USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.

PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

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FILE 'HCAPLUS' ENTERED AT 13:10:39 ON 29 JAN 2003

USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.

PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

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FILE 'USPATFULL' ENTERED AT 13:10:39 ON 29 JAN 2003

CA INDEXING COPYRIGHT (C) 2003 AMERICAN CHEMICAL SOCIETY (ACS)

=> s l9 or l8

2 FILES SEARCHED...
L10 223335 L9 OR L8

=> s l4
L11 110 L4

=> s l11 and l10
L12 0 L11 AND L10

=> s l11 and (cyano or nitrile)
L13 24 L11 AND (CYANO OR NITRILE)

=> duplicate
ENTER REMOVE, IDENTIFY, ONLY, OR (?):remove
ENTER L# LIST OR (END):l13
DUPLICATE PREFERENCE IS 'CAPLUS, HCAPLUS, USPATFULL'
KEEP DUPLICATES FROM MORE THAN ONE FILE? Y/(N):n
PROCESSING COMPLETED FOR L13
L14 16 DUPLICATE REMOVE L13 (8 DUPLICATES REMOVED)

=> d l14 1-16 ibib histr abs
'HISTR' IS NOT A VALID FORMAT
In a multifile environment, a format can only be used if it is valid
in at least one of the files. Refer to file specific help messages
or the STNGUIDE file for information on formats available in
individual files.
REENTER DISPLAY FORMAT FOR ALL FILES (FILEDEFAULT):ibib hitstr abs

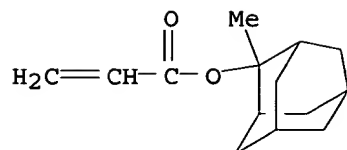
L14 ANSWER 1 OF 16 CAPLUS COPYRIGHT 2003 ACS DUPLICATE 1
ACCESSION NUMBER: 2002:904532 CAPLUS
DOCUMENT NUMBER: 137:391087
TITLE: Positive-working photoresist compositions containing
specific resin and specific acid-generator
INVENTOR(S): Sato, Kenichiro; Kodama, Kunihiro
PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 105 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002341539	A2	20021127	JP 2001-149620	20010518
US 2003008241	A1	20030109	US 2002-93411	20020311
PRIORITY APPLN. INFO.:			JP 2001-68849	A 20010312
			JP 2001-68850	A 20010312
			JP 2001-149620	A 20010518

IT 398140-88-0P 398141-10-1P
RL: SPN (Synthetic preparation); TEM (Technical or engineered material
use); PREP (Preparation); USES (Uses)
(resin; pos.-working photoresist compns.)
RN 398140-88-0 CAPLUS
CN Bicyclo[2.2.1]hept-5-ene-2-carboxylic acid, 1,1-dimethylethyl ester,
polymer with 2,5-furandione, hexahydro-2-oxo-3,5-methano-2H-
cyclopenta[b]furan-6-yl 2-propenoate and 2-methyltricyclo[3.3.1.1^{3,7}]dec-2-
yl 2-propenoate (9CI) (CA INDEX NAME)

CM 1

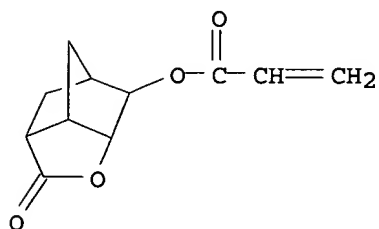
CRN 249562-06-9
CMF C14 H20 O2



CM 2

CRN 242129-35-7

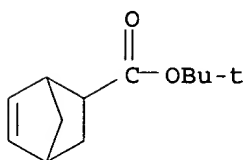
CMF C11 H12 O4



CM 3

CRN 154970-45-3

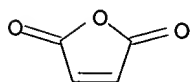
CMF C12 H18 O2



CM 4

CRN 108-31-6

CMF C4 H2 O3



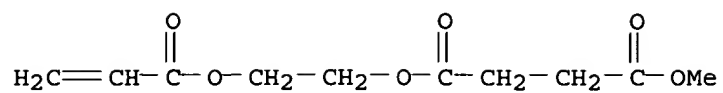
RN 398141-10-1 CAPLUS

CM Butanedioic acid, methyl 2-[(1-oxo-2-propenyl)oxy]ethyl ester, polymer with 1,1-dimethylethyl bicyclo[2.2.1]hept-5-ene-2-carboxylate, 2,5-furandione and 5-oxo-4-oxatricyclo[4.3.1.1^{3,8}]undec-1-yl 2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 398141-09-8

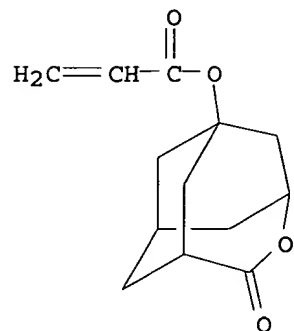
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CM 2

CRN 265999-35-7

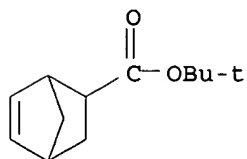
CMF C13 H16 O4



CM 3

CRN 154970-45-3

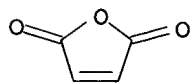
CMF C12 H18 O2



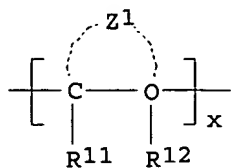
CM 4

CRN 108-31-6

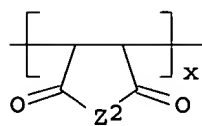
CMF C4 H2 O3



GI



I

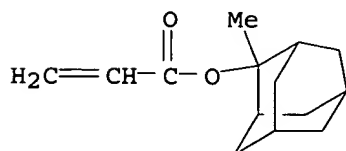


II

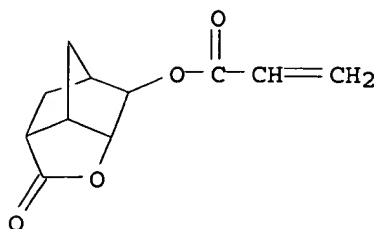
AB The title compn. contains a resin increasing the soly. towards an alkali developer by reacting with an acid and actinic ray- or radiation-sensitive acid-generator, wherein the resin has repeating unit I(R11'-12' = H, cyano, halo, alkyl; Z' = alicyclic residue), repeating unit II (Z2 = -O-, -N(R41)-; R41 = H, OH, alkyl, etc.), and [CH2-C(R91)(-CO-X-Q-R92)] (R91= H, lower alkyl, halo, CN; X5 = -O-, -S-, -NR93-, -NR93SO2-; R93 = H, alkyl; Q = single bond, connecting group) and wherein the acid-generator has structure (R1)(R2)(R3)S+ X- or R4-I+-R5 X- (R1-5 = aliph. hydrocarbon, arom. hydrocarbon; X- = R6-SO2-N--SO2=R7, R8-SO2-C-(SO2-R10)-SO2-R9; R6-10 = aliph. hydrocarbon). The compn. provides the photoresist of the high resoln. and the wide margin for the exposure conditions for.

L14 ANSWER 2 OF 16 CAPLUS COPYRIGHT 2003 ACS DUPLICATE 2
 ACCESSION NUMBER: 2002:673045 CAPLUS
 DOCUMENT NUMBER: 137:224107
 TITLE: Chemically amplified positive-working far-UV photoresist compositions suitable for halftone phase-shift masks
 INVENTOR(S): Sato, Kenichiro; Uenishi, Kazuya
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 104 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002251011	A2	20020906	JP 2001-48782	20010223
PRIORITY APPLN. INFO.:			JP 2001-48782	20010223
OTHER SOURCE(S): MARPAT 137:224107				
IT 398140-88-0P, tert-Butyl norbornenecarboxylate-maleic anhydride-2-methyl-2-adamantyl acrylate-norbornenelactone acrylate copolymer 398141-10-1P				
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (chem. amplified pos.-working far-UV photoresists suitable for halftone phase-shift masks)				
RN	398140-88-0	CAPLUS		
CN	Bicyclo[2.2.1]hept-5-ene-2-carboxylic acid, 1,1-dimethylethyl ester, polymer with 2,5-furandione, hexahydro-2-oxo-3,5-methano-2H-cyclopenta[b]furan-6-yl 2-propenoate and 2-methyltricyclo[3.3.1.1 ^{3,7}]dec-2-yl 2-propenoate. (9CI) (CA INDEX NAME)			
CM	1			
CRN	249562-06-9			
CMF	C14 H20 O2			

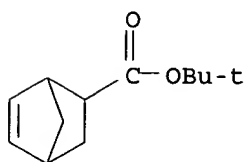


CRN 242129-35-7
CMF C11 H12 O4



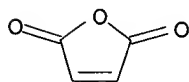
CM 3

CRN 154970-45-3
CMF C12 H18 O2



CM 4

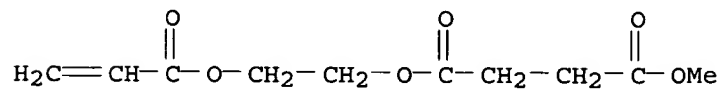
CRN 108-31-6
CMF C4 H2 O3



RN 398141-10-1 CAPLUS
CN Butanedioic acid, methyl 2-[(1-oxo-2-propenyl)oxy]ethyl ester, polymer with 1,1-dimethylethyl bicyclo[2.2.1]hept-5-ene-2-carboxylate, 2,5-furandione and 5-oxo-4-oxatricyclo[4.3.1.1^{3,8}]undec-1-yl 2-propenoate (9CI) (CA INDEX NAME)

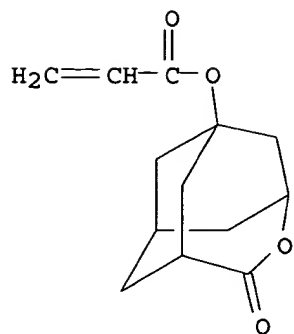
CM 1

CRN 398141-09-8
CMF C10 H14 O6



CM 2

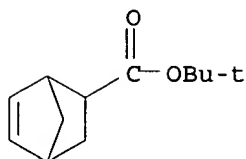
CRN 265999-35-7
CMF C13 H16 O4



CM 3

CRN 154970-45-3

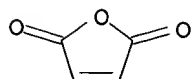
CMF C12 H18 O2



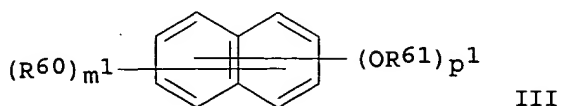
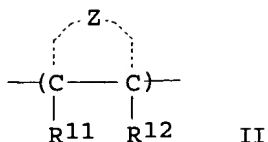
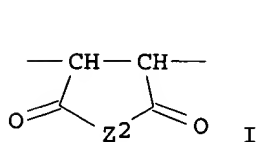
CM 4

CRN 108-31-6

CMF C4 H2 O3



GI

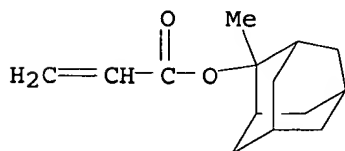


AB The compns. comprise (A) polymers with acid-decomposable groups comprising repeating units CH(COXAR1)CH(COXAR2) (R1, R2 = H, **cyano**, OH, CO2H, etc.) and/or I (Z2 = O, NR3; R3 = H, OH, alkyl, haloalkyl, etc.) and other repeating units II (R11, R12 = H, **cyano**, halo, alkyl; Z = at. group contg. C2 linkage for forming alicyclic structure), (B) dissoln.

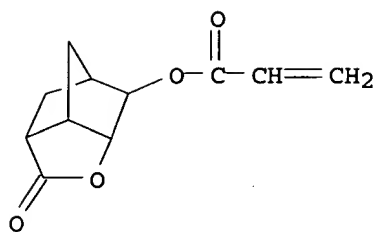
inhibitors R[X(CR51R52)q1CO2R']n1 (X = O, S, NR53, single linkage; R51-53 = H, alkyl; R' = acid-decomposable group as CO2R'; R = n1-valent residue of bridged hydrocarbon, satd. hydrocarbon, naphthalene; n1 = 1-4; q1 = 0-10) or III (R60 = alkyl, halo; R61 = acid-decomposable group as OR61; m1 = 0-4; p1 = 1-4), and (C) imido sulfonate photoacid generators. The compns. may further contain sulfonium salt photoacid generators.

L14 ANSWER 3 OF 16 CAPLUS COPYRIGHT 2003 ACS DUPLICATE 3
 ACCESSION NUMBER: 2002:592336 CAPLUS
 DOCUMENT NUMBER: 137:147763
 TITLE: Chemically amplified positive-working photoresist composition providing fine resolution patterns
 INVENTOR(S): Fujimori, Toru
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 94 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002221796	A2	20020809	JP 2001-18868	20010126
PRIORITY APPLN. INFO.:			JP 2001-18868	20010126
OTHER SOURCE(S): MARPAT 137:147763				
IT 398140-88-0P				
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (in chem. amplified pos.-working photoresist compn. for far-UV exposure)				
RN	398140-88-0 CAPLUS			
CN	Bicyclo[2.2.1]hept-5-ene-2-carboxylic acid, 1,1-dimethylethyl ester, polymer with 2,5-furandione, hexahydro-2-oxo-3,5-methano-2H-cyclopenta[b]furan-6-yl 2-propenoate and 2-methyltricyclo[3.3.1.1 ^{3,7}]dec-2-yl 2-propenoate (9CI) (CA INDEX NAME)			
CM	1			
CRN	249562-06-9			
CMF	C14 H20 O2			

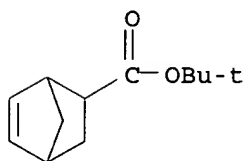


CM 2
 CRN 242129-35-7
 CMF C11 H12 O4



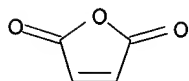
CM 3

CRN 154970-45-3
CMF C12 H18 O2



CM 4

CRN 108-31-6
CMF C4 H2 O3



IT 398141-10-1

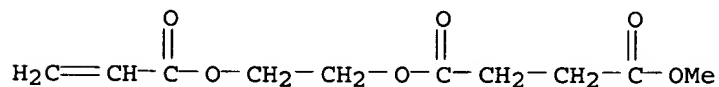
RL: TEM (Technical or engineered material use); USES (Uses)
(in chem. amplified pos.-working photoresist compn. for far-UV exposure)

RN 398141-10-1 CAPLUS

CN Butanedioic acid, methyl 2-[(1-oxo-2-propenyl)oxy]ethyl ester, polymer with 1,1-dimethylethyl bicyclo[2.2.1]hept-5-ene-2-carboxylate, 2,5-furandione and 5-oxo-4-oxatricyclo[4.3.1.1^{3,8}]undec-1-yl 2-propenoate (9CI) (CA INDEX NAME)

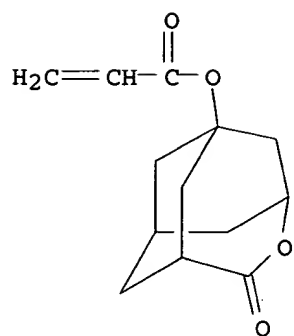
CM 1

CRN 398141-09-8
CMF C10 H14 O6



CM 2

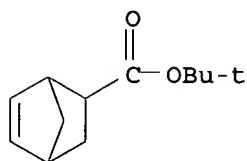
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CMF C13 H16 O4



CM 3

CRN 154970-45-3

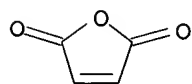
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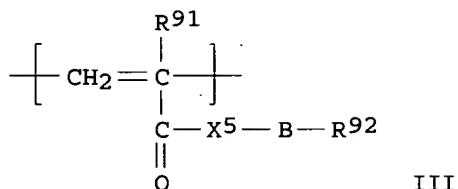
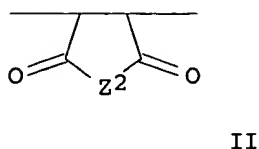
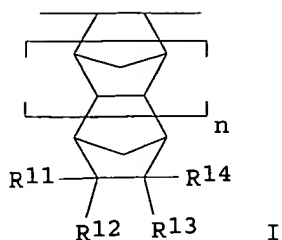
CM 4

CRN 108-31-6

CMF C4 H2 O3



GI



AB The photoresist compn., used in fabrication of semiconductor devices, contains a photoacid generator, a polymer increasing the soly. in an alkali developer by reaction with an acid and having repeating groups I, II, and III [R11-14 = acid-decomposable group, H, halo, **cyano**, CO2H, etc.; .gtoreq.2 of R11-14 may form a ring; n = 0, 1; Z2 = O, N(R41); R41 = H, OH, (halo)alkyl, etc.; R91 = H, lower alkyl, halo, CN; X5 = O, S, etc.; R92 = H, cyclic or chain alkyl, alkoxy, OH, etc.], and a compd. contg. CON(OH) group. The photoresist compn., esp. when using an ArF excimer laser, provides excellent post exposure delay (PED) stability and profiles and inhibits shortening of line pattern edges.

L14 ANSWER 4 OF 16 CAPLUS COPYRIGHT 2003 ACS DUPLICATE 4
 ACCESSION NUMBER: 2002:566567 CAPLUS
 DOCUMENT NUMBER: 137:132103
 TITLE: Positive-working photoresist composition
 INVENTOR(S): Fujimori, Toru
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 93 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002214787	A2	20020731	JP 2001-13298	20010122
PRIORITY APPLN. INFO.:			JP 2001-13298	20010122

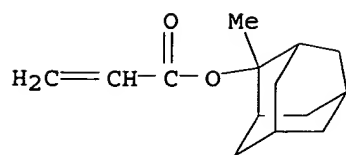
IT **398140-88-0P 398141-10-1P**
 RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (resin in pos.-working photoresist compn.)

RN 398140-88-0 CAPLUS

CN Bicyclo[2.2.1]hept-5-ene-2-carboxylic acid, 1,1-dimethylethyl ester, polymer with 2,5-furandione, hexahydro-2-oxo-3,5-methano-2H-cyclopenta[b]furan-6-yl 2-propenoate and 2-methyltricyclo[3.3.1.1^{3,7}]dec-2-yl 2-propenoate (9CI) (CA INDEX NAME)

CM 1

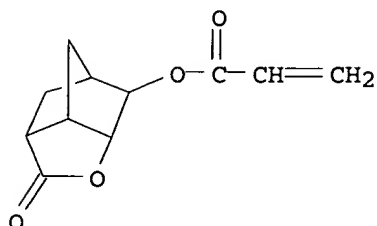
CRN 249562-06-9
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CM 2

CRN 242129-35-7

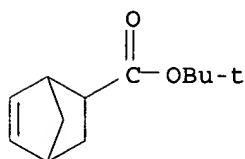
CMF C11 H12 O4



CM 3

CRN 154970-45-3

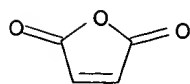
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CM 4

CRN 108-31-6

CMF C4 H2 O3



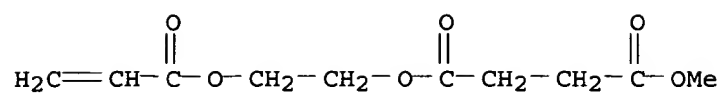
RN 398141-10-1 CAPLUS

CM Butanedioic acid, methyl 2-[(1-oxo-2-propenyl)oxy]ethyl ester, polymer with 1,1-dimethylethyl bicyclo[2.2.1]hept-5-ene-2-carboxylate, 2,5-furandione and 5-oxo-4-oxatricyclo[4.3.1.1.3,8]undec-1-yl 2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 398141-09-8

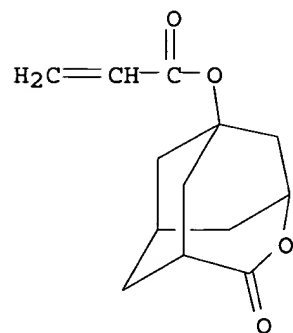
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CRN 265999-35-7

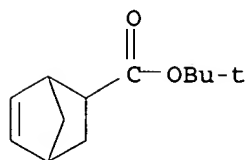
CMF C13 H16 O4



CM 3

CRN 154970-45-3

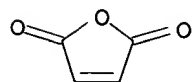
CMF C12 H18 O2



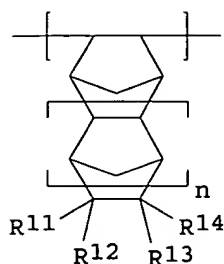
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CRN 108-31-6

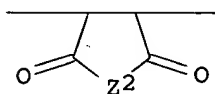
CMF C4 H2 O3



GI



I



II

AB The title compn. contains a light- or radiation-sensitive acid generator, a resin increasing soly. rate in an alkali developer by an acid, and a compd. having an acid-sensitive group, wherein the resin has repeating group I (R11-14 = acid-sensitive group, H, halo, **cyano**, etc.; n = 0, 1), II (Z2 = -O-, -N(R41)-; R41 = H, OH, alkyl, etc.), and [CH2-C(R91)(CO-X5-B-R92)] (R91 = H, lower alkyl, halo, -CN; X5 = -O-, -S-, -NR93; R93 = H, chain or cyclic alkyl; B = single bond, connecting group; R92 = H, chain or cyclic alkyl, alkoxy, carboxy, etc.) and wherein the compd. having the acid-sensitive group generates a group, which is sol. in the alkali developer or more sol. in the alkali developer before the acid reaction. The compn. shows the improved stability during the post exposure delay (PED).

L14 ANSWER 5 OF 16 CAPLUS COPYRIGHT 2003 ACS DUPLICATE 5

ACCESSION NUMBER: 2002:566566 CAPLUS
 DOCUMENT NUMBER: 137:132102
 TITLE: Positive-working photoresist composition
 INVENTOR(S): Fujimori, Toru
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 78 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002214786	A2	20020731	JP 2001-10481	20010118
PRIORITY APPLN. INFO.:			JP 2001-10481	20010118

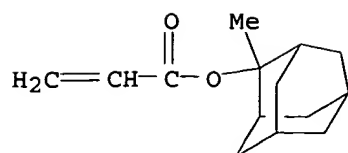
IT **398140-88-0P 398141-10-1P**
 RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (resin in pos.-working photoresist compn.)

RN 398140-88-0 CAPLUS

CN Bicyclo[2.2.1]hept-5-ene-2-carboxylic acid, 1,1-dimethylethyl ester, polymer with 2,5-furandione, hexahydro-2-oxo-3,5-methano-2H-cyclopenta[b]furan-6-yl 2-propenoate and 2-methyltricyclo[3.3.1.1.3,7]dec-2-yl 2-propenoate (9CI) (CA INDEX NAME)

CM 1

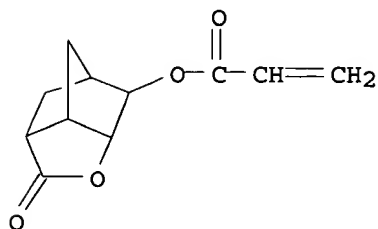
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CRN 242129-35-7

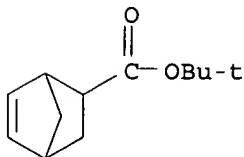
CMF C11 H12 O4



CM 3

CRN 154970-45-3

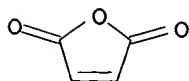
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CM 4

CRN 108-31-6

CMF C4 H2 O3



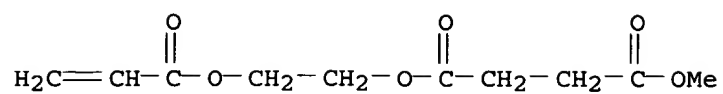
RN 398141-10-1 CAPLUS

CN Butanedioic acid, methyl 2-[(1-oxo-2-propenyl)oxy]ethyl ester, polymer with 1,1-dimethylethyl bicyclo[2.2.1]hept-5-ene-2-carboxylate, 2,5-furandione and 5-oxo-4-oxatricyclo[4.3.1.1^{3,8}]undec-1-yl 2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 398141-09-8

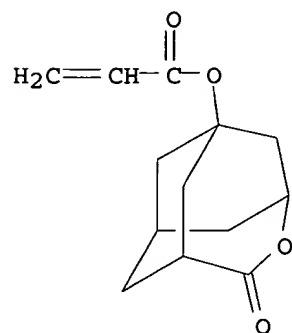
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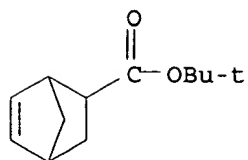
CMF C13 H16 O4



CM 3

CRN 154970-45-3

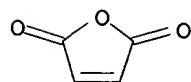
CMF C12 H18 O2



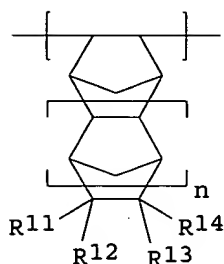
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CRN 108-31-6

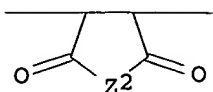
CMF C4 H2 O3



GI



I



II

AB The title compn. contains a light- or radiation-sensitive acid generator, a resin increasing soly. rate in an alkali developer by an acid, and a basic compd. not contg. an arom. group, wherein the resin has repeating group I (R11-14 = acid-sensitive group, H, halo, **cyano**, etc.; n = 0, 1), II (Z2 = -O-, -N(R41)-; R41 = H, OH, alkyl, etc.), and [CH₂-C(R91)(CO-X5-B-R92)] (R91 = H, lower alkyl, halo, -CN; X5 = -O-, -S-, -NR93; R93 = H, chain or cyclic alkyl; B = single bond, connecting group; R92 = H, chain or cyclic alkyl, alkoxy, carboxy, etc.). The compn. shows the improved stability during the post exposure delay (PED).

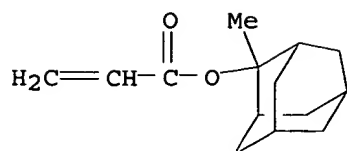
L14 ANSWER 6 OF 16 CAPLUS COPYRIGHT 2003 ACS DUPLICATE 6
 ACCESSION NUMBER: 2002:538441 CAPLUS
 DOCUMENT NUMBER: 137:116950
 TITLE: Chemically amplified far-UV positive photoresists compositions with improved exposure margin and defocus latitude
 INVENTOR(S): Sato, Kenichiro
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 81 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002202607	A2	20020719	JP 2000-402246	20001228

PRIORITY APPLN. INFO.: JP 2000-402246 20001228
 OTHER SOURCE(S): MARPAT 137:116950
 IT 398140-88-0P, tert-Butyl norbornenecarboxylate-maleic anhydride-2-methyl-2-adamantyl acrylate-norbornenelacton acrylate copolymer
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (far-UV pos. photoresists having sulfonium and iodonium photoacid generators with improved exposure margin and defocus latitude)
 RN 398140-88-0 CAPLUS
 CN Bicyclo[2.2.1]hept-5-ene-2-carboxylic acid, 1,1-dimethylethyl ester, polymer with 2,5-furandione, hexahydro-2-oxo-3,5-methano-2H-cyclopenta[b]furan-6-yl 2-propenoate and 2-methyltricyclo[3.3.1.1^{3,7}]dec-2-yl 2-propenoate (9CI) (CA INDEX NAME)

CM 1

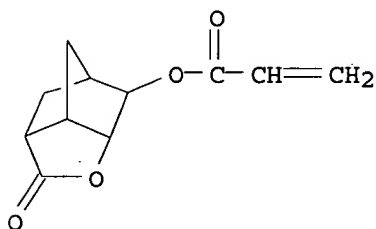
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CM 2

CRN 242129-35-7

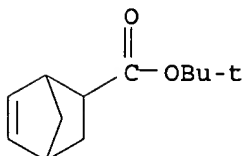
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CM 3

CRN 154970-45-3

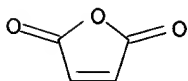
CMF C12 H18 O2



CM 4

CRN 108-31-6

CMF C4 H2 O3



IT 398141-10-1

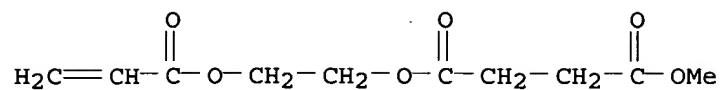
RL: TEM (Technical or engineered material use); USES (Uses)
(far-UV pos. photoresists having sulfonium and iodonium photoacid
generators with improved exposure margin and defocus latitude)

RN 398141-10-1 CAPLUS

CN Butanedioic acid, methyl 2-[(1-oxo-2-propenyl)oxy]ethyl ester, polymer
with 1,1-dimethylethyl bicyclo[2.2.1]hept-5-ene-2-carboxylate,
2,5-furandione and 5-oxo-4-oxatricyclo[4.3.1.1^{3,8}]undec-1-yl 2-propenoate
(9CI) (CA INDEX NAME)

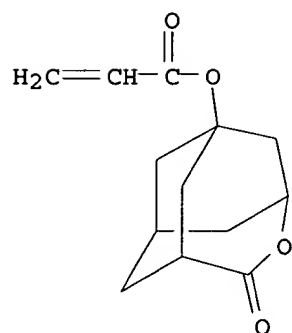
CM 1

CRN 398141-09-8
CMF C10 H14 O6



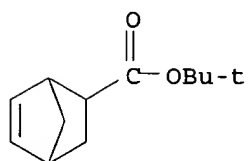
CM 2

CRN 265999-35-7
CMF C13 H16 O4



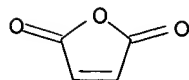
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CRN 154970-45-3
CMF C12 H18 O2

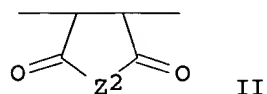
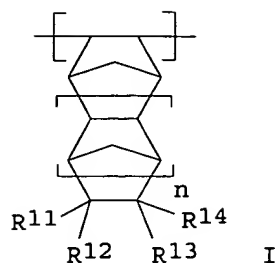


CM 4

CRN 108-31-6
CMF C4 H2 O3



GI



AB The resist compns. comprise (A) photoacid generators Q1Q2Q3S+X- [Q1-3 = (un)substituted phenyl; substituent = H, alkyl, alkoxy, OH, halo, SR; R = alkyl, aryl; X = RFSO3; RF = C.gtoREQ.2-fluoroalkyl], X-Y1S+(Y2)Z1SZ2S+Y3Y4X- [Y1-4 = (un)substituted Ph (max. 2 substituents); Z1, Z2 = (un)substituted phenylene (max. 2 substituents); substituent, X = same as above], and Q4I+Q5X- [Q4, Q5 = (un)substituted phenyl; substituent, X = same as above] and (B) resins, which become alkali-sol. by acid decompn., comprising repeating units I (R11-14 = acid-decomposable group, H, halo, **cyano**, COOH, etc.; n = 0, 1), II (Z2 = O, NR41; R41 = H, OH, alkyl, haloalkyl, OSO2R42; R42 = alkyl, haloalkyl, etc.), and CH2CR91COX5BR92 (R91 = H, lower alkyl, halo, CN; X5 = O, S, NR93, NR93SO2; R93 = H, alkyl; B = single bond, linking group; R92 = H, alkyl, alkoxy, OH, etc.).

L14 ANSWER 7 OF 16 CAPLUS COPYRIGHT 2003 ACS

DUPLICATE 7

ACCESSION NUMBER: 2002:538440 CAPLUS

DOCUMENT NUMBER: 137:116949

TITLE: Storage-stable chemically amplified far-UV positive photoresists compositions with good sensitivity and no aggregation

INVENTOR(S): Sato, Kenichiro

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 81 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002202606	A2	20020719	JP 2000-402245	20001228
PRIORITY APPLN. INFO.: IT 398140-88-0P			JP 2000-402245	20001228

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(storage-stable far-UV pos. photoresist compns. in solvents with good soly.)

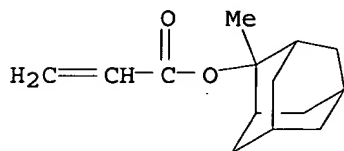
RN 398140-88-0 CAPLUS

CN Bicyclo[2.2.1]hept-5-ene-2-carboxylic acid, 1,1-dimethylethyl ester,
polymer with 2,5-furandione, hexahydro-2-oxo-3,5-methano-2H-
cyclopenta[b]furan-6-yl 2-propenoate and 2-methyltricyclo[3.3.1.1^{3,7}]dec-2-
yl 2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 249562-06-9

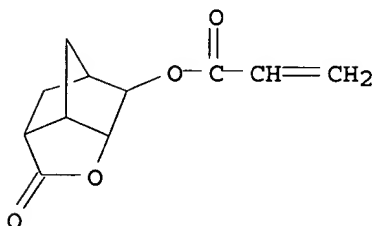
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CRN 242129-35-7

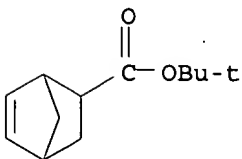
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CM 3

CRN 154970-45-3

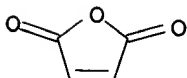
CMF C12 H18 O2



CM 4

CRN 108-31-6

CMF C4 H2 O3



IT 398141-10-1

RL: TEM (Technical or engineered material use); USES (Uses)
(storage-stable far-UV pos. photoresist compns. in solvents with good
soly.)

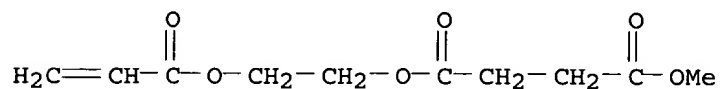
RN 398141-10-1 CAPLUS

CN Butanedioic acid, methyl 2-[(1-oxo-2-propenyl)oxy]ethyl ester, polymer
with 1,1-dimethylethyl bicyclo[2.2.1]hept-5-ene-2-carboxylate,
2,5-furandione and 5-oxo-4-oxatricyclo[4.3.1.1^{3,8}]undec-1-yl 2-propenoate
(9CI) (CA INDEX NAME)

CM 1

CRN 398141-09-8

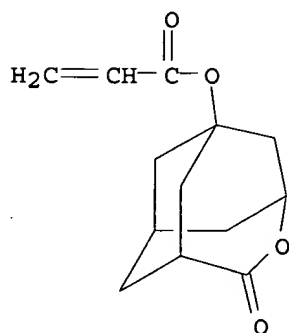
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CM 2

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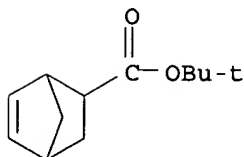
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CM 3

CRN 154970-45-3

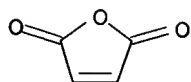
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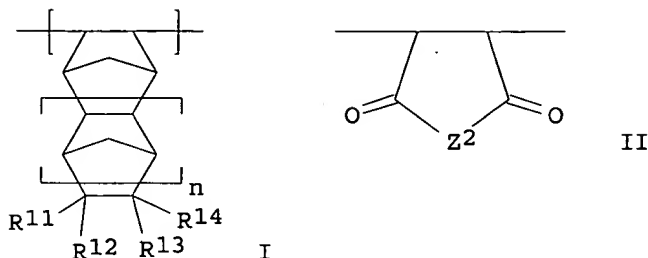
CM 4

CRN 108-31-6

CMF C4 H2 O3



GI



AB The resist compns., useful for contact hole formation in semiconductor device fabrication, comprise (A) photoacid generators, (B) resins, which become alkali-sol. by acid decompn., comprising repeating units I (R11-14 = acid-decomposable group, H, halo, **cyano**, COOH, etc.; n = 0, 1), II (Z2 = O, NR41; R41 = H, OH, alkyl, haloalkyl, OSO2R42; R42 = alkyl, haloalkyl, etc.), and CH2CR91COX5BR92 (R91 = H, lower alkyl, halo, CN; X5 = O, S, NR93, NR93SO2; R93 = H, alkyl; B = single bond, linking group; R92 = H, alkyl, alkoxy, OH, etc.), and (C) mixed solvents comprising 1st solvents of propylene glycol monoalkyl ether alkoxylates and 2nd solvents selected from propylene glycol monoalkyl ethers, alkyl lactates, and alkyl alkoxypropionates or, instead of the 2nd solvents, 3rd solvents selected from .gamma.-butyrolactone, ethylene carbonate, and propylene carbonate. The solvents may comprise .gtoreq.1 solvents selected from each of the 1st, 2nd, and 3rd solvent groups.

L14 ANSWER 8 OF 16 CAPLUS COPYRIGHT 2003 ACS DUPLICATE 8

ACCESSION NUMBER: 2002:539335 CAPLUS

DOCUMENT NUMBER: 137:101423

TITLE: Storage-stable chemically amplified far-UV positive photoresist compositions suitable for half-tone phase-shift photomasks

INVENTOR(S): Sato, Kenichiro

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 80 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002202605	A2	20020719	JP 2000-402244	20001228
PRIORITY APPLN. INFO.:			JP 2000-402244	20001228
OTHER SOURCE(S):	MARPAT 137:101423			

IT 398140-88-0P

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(storage-stable far-UV pos. photoresists contg. triphenylsulfonium photoacid generators for half-tone phase-shift photomasks)

RN 398140-88-0 CAPLUS

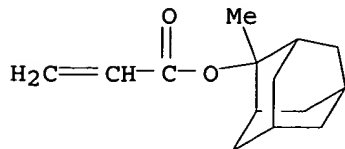
CN Bicyclo[2.2.1]hept-5-ene-2-carboxylic acid, 1,1-dimethylethyl ester, polymer with 2,5-furandione, hexahydro-2-oxo-3,5-methano-2H-cyclopenta[b]furan-6-yl 2-propenoate and 2-methyltricyclo[3.3.1.1.3,7]dec-2-

yl 2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 249562-06-9

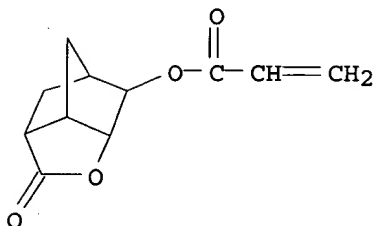
CMF C14 H20 O2



CM 2

CRN 242129-35-7

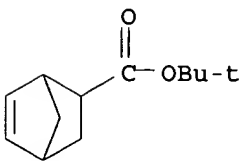
CMF C11 H12 O4



CM 3

CRN 154970-45-3

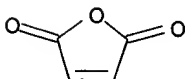
CMF C12 H18 O2



CM 4

CRN 108-31-6

CMF C4 H2 O3



IT 398141-10-1

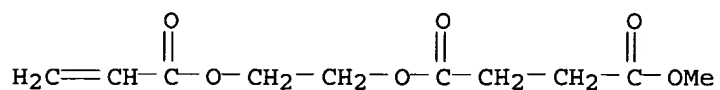
RL: TEM (Technical or engineered material use); USES (Uses)
(storage-stable far-UV pos. photoresists contg. triphenylsulfonium
photoacid generators for half-tone phase-shift photomasks)

RN 398141-10-1 CAPLUS
 CN Butanedioic acid, methyl 2-[(1-oxo-2-propenyl)oxy]ethyl ester, polymer
 with 1,1-dimethylethyl bicyclo[2.2.1]hept-5-ene-2-carboxylate,
 2,5-furandione and 5-oxo-4-oxatricyclo[4.3.1.1^{3,8}]undec-1-yl 2-propenoate
 (9CI) (CA INDEX NAME)

CM 1

CRN 398141-09-8

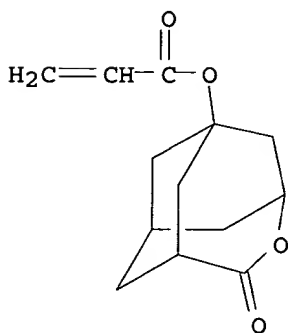
CMF C10 H14 O6



CM 2

CRN 265999-35-7

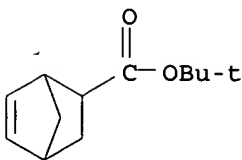
CMF C13 H16 O4



CM 3

CRN 154970-45-3

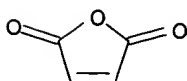
CMF C12 H18 O2



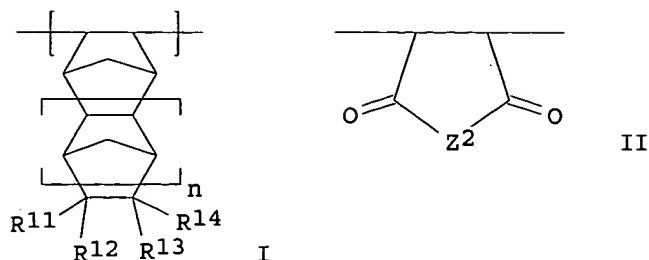
CM 4

CRN 108-31-6

CMF C4 H2 O3



GI



AB The resist compns. comprise (A) photoacid generators [C6H5-lRs4lS(C6H5-nRs6n)C6H5-mRs5m]+Xs- (Rs4, Rs5, Rs6 = alkyl, cycloalkyl, alkoxy, OH, etc.; l = 1-5; m, n = 0-5; Xs- = RSO3-; R = aliph. or arom. hydrocarbon group) and (B) resins comprising repeating units I (R11-14 = acid-decomposable group, H, halo, **cyano**, COOH, etc.; n = 0, 1), II (Z2 = O, NR41; R41 = H, OH, alkyl, haloalkyl, OSO2R42; R42 = alkyl, haloalkyl, etc.), and CH2CR91COX5BR92 (R91 = H, lower alkyl, halo, CN; X5 = O, S, NR93, NR93SO2; R93 = H, alkyl; B = single bond, linking group; R92 = H, alkyl, alkoxy, OH, etc.), wherein the resins become alkali-sol. by acid decompn.

L14 ANSWER 9 OF 16 USPATFULL

ACCESSION NUMBER: 2002:279949 USPATFULL
 TITLE: Positive resist composition
 INVENTOR(S): Fujimori, Toru, Shizuoka, JAPAN
 Kawabe, Yasumasa, Shizuoka, JAPAN
 Nakao, Hajime, Shizuoka, JAPAN
 PATENT ASSIGNEE(S): FUJI PHOTO FILM CO., LTD. (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2002155383	A1	20021024
APPLICATION INFO.:	US 2001-902793	A1	20010712 (9)

	NUMBER	DATE
PRIORITY INFORMATION:	JP 2000-211642	20000712
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	SUGHRUE, MION, ZINN,, MACPEAK & SEAS, PLLC, 2100 Pennsylvania Avenue, NW, Washington, DC, 20037-3213	
NUMBER OF CLAIMS:	17	
EXEMPLARY CLAIM:	1	
LINE COUNT:	2009	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 398140-88-0P 398141-10-1P

(resin in pos.-working photoresist compn.)

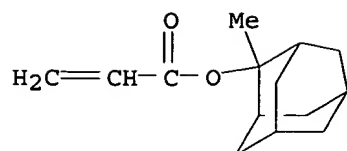
RN 398140-88-0 USPATFULL

CN Bicyclo[2.2.1]hept-5-ene-2-carboxylic acid, 1,1-dimethylethyl ester, polymer with 2,5-furandione, hexahydro-2-oxo-3,5-methano-2H-cyclopenta[b]furan-6-yl 2-propenoate and 2-methyltricyclo[3.3.1.1^{3,7}]dec-2-yl 2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 249562-06-9

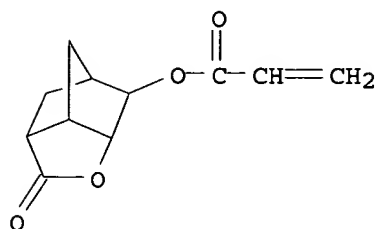
CMF C14 H20 O2



CM 2

CRN 242129-35-7

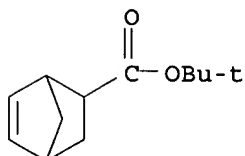
CMF C11 ,H12 O4



CM 3

CRN 154970-45-3

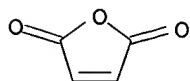
CMF C12 H18 O2



CM 4

CRN 108-31-6

CMF C4 H2 O3



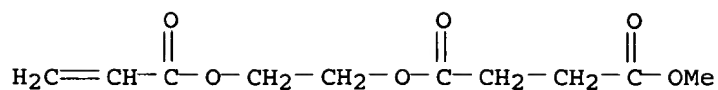
RN 398141-10-1 USPATFULL

CN Butanedioic acid, methyl 2-[(1-oxo-2-propenyl)oxy]ethyl ester, polymer with 1,1-dimethylethyl bicyclo[2.2.1]hept-5-ene-2-carboxylate, 2,5-furandione and 5-oxo-4-oxatricyclo[4.3.1.1^{3,8}]undec-1-yl 2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 398141-09-8

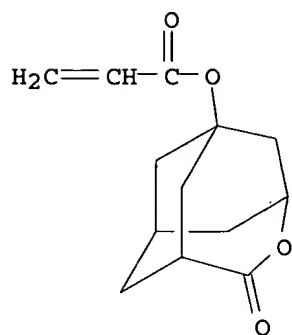
CMF C10 H14 O6



CM 2

CRN 265999-35-7

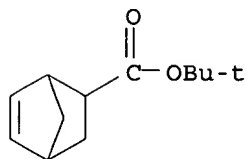
CMF C13 H16 O4



CM 3

CRN 154970-45-3

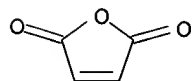
CMF C12 H18 O2



CM 4

CRN 108-31-6

CMF C4 H2 O3



AB A positive resist composition comprises: (A) a resin having an aliphatic cyclic hydrocarbon group and increasing the solubility to an alkali developer by the action of an acid; (B) a compound generating an acid upon irradiation with an actinic ray or radiation; and (C) a nitrogen-containing compound having in the molecule at least one partial structure represented by following formula (I). ##STR1##

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L14 ANSWER 10 OF 16 USPATFULL

ACCESSION NUMBER: 2002:251040 USPATFULL

TITLE: Photoresist compositions comprising polycyclic polymers
with acid labile pendant groups

INVENTOR(S): Goodall, Brian L., Akron, OH, UNITED STATES
Jayaraman, Saikumar, Cuyahoga Falls, OH, UNITED STATES
Shick, Robert A., Strongsville, OH, UNITED STATES
Rhodes, Larry F., Silverlake, OH, UNITED STATES

PATENT ASSIGNEE(S): THE B.F. GOODRICH COMPANY (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2002136982	A1	20020926
APPLICATION INFO.:	US 2002-79218	A1	20020219 (10)
RELATED APPLN. INFO.:	Continuation of Ser. No. US 2000-630894, filed on 2 Aug 2000, PENDING Continuation of Ser. No. US 1997-812418, filed on 6 Mar 1997, GRANTED, Pat. No. US 6136499		

	NUMBER	DATE
PRIORITY INFORMATION:	US 1996-25174P	19960307 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	Raymond W. Green, BRINKS HOFER GILSON & LIONE, P.O. BOX 10395, CHICAGO, IL, 60610	
NUMBER OF CLAIMS:	46	
EXEMPLARY CLAIM:	1	
LINE COUNT:	3053	
CAS INDEXING IS AVAILABLE FOR THIS PATENT.		
IT 196805-15-9P		

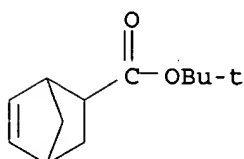
(prepn. and use in photoresist compns.)

RN 196805-15-9 USPATFULL

CN Bicyclo[2.2.1]hept-5-ene-2-acetic acid, methyl ester, polymer with 1,1-dimethylethyl bicyclo[2.2.1]hept-5-ene-2-carboxylate (9CI) (CA INDEX NAME)

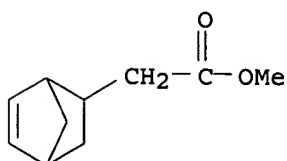
CM 1

CRN 154970-45-3
CMF C12 H18 O2



CM 2

CRN 20268-59-1
CMF C10 H14 O2



AB The present invention relates to a radiation sensitive photoresist

composition comprising a photoacid initiator and a polycyclic polymer comprising repeating units that contain pendant acid labile groups. Upon exposure to an imaging radiation source the photoacid initiator generates an acid which cleaves the pendant acid labile groups effecting a polarity change in the polymer. The polymer is rendered soluble in an aqueous base in the areas exposed to the imaging source.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L14 ANSWER 11 OF 16 USPATFULL

ACCESSION NUMBER: 2002:236205 USPATFULL

TITLE: Photoresist compositions comprising polycyclic polymers with acid labile pendant groups

INVENTOR(S): Goodall, Brian L., Baton Rouge, LA, UNITED STATES
Jayaraman, Saikumar, Chandler, AZ, UNITED STATES
Shick, Robert A., Strongsville, OH, UNITED STATES
Rhodes, Larry F., Silverlake, OH, UNITED STATES
Allen, Robert David, San Jose, CA, UNITED STATES
DiPietro, Richard Anthony, San Jose, CA, UNITED STATES
Wallow, Thomas, Union City, CA, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2002128408	A1	20020912
APPLICATION INFO.:	US 2001-850915	A1	20010508 (9)
RELATED APPLN. INFO.:	Continuation of Ser. No. US 1997-928573, filed on 12 Sep 1997, PATENTED Continuation-in-part of Ser. No. US 1997-812418, filed on 6 Mar 1997, PATENTED		

	NUMBER	DATE
PRIORITY INFORMATION:	US 1996-25174P	19960307 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	The B.F. Goodrich Company, Law Department, 9921 Brecksville Road, Brecksville, OH, 44141-3289	
NUMBER OF CLAIMS:	14	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	3 Drawing Page(s)	
LINE COUNT:	7459	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 196805-15-9P

(prepn. and use in photoresist comps.)

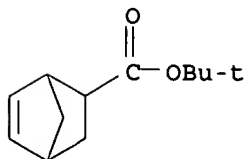
RN 196805-15-9 USPATFULL

CN Bicyclo[2.2.1]hept-5-ene-2-acetic acid, methyl ester, polymer with 1,1-dimethylethyl bicyclo[2.2.1]hept-5-ene-2-carboxylate (9CI) (CA INDEX NAME)

CM 1

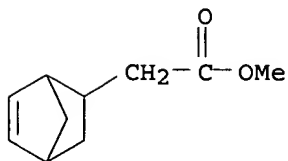
CRN 154970-45-3

CMF C12 H18 O2



CM 2

CRN 20268-59-1
CMF C10 H14 O2



AB The present invention relates to a radiation sensitive photoresist composition comprising a photoacid initiator and a polycyclic polymer comprising repeating units that contain pendant acid labile groups. Upon exposure to an imaging radiation source the photoacid initiator generates an acid which cleaves the pendant acid labile groups effecting a polarity change in the polymer. The polymer is rendered soluble in an aqueous base in the areas exposed to the imaging source.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L14 ANSWER 12 OF 16 USPATFULL

ACCESSION NUMBER: 2002:99037 USPATFULL
TITLE: Positive photosensitive composition
INVENTOR(S): Kodama, Kunihiro, Shizuoka, JAPAN
Aoai, Toshiaki, Shizuoka, JAPAN
PATENT ASSIGNEE(S): FUJI PHOTO FILM CO., LTD. (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2002051933	A1	20020502
	US 6492091	B2	20021210
APPLICATION INFO.:	US 2001-921691	A1	20010806 (9)

	NUMBER	DATE
PRIORITY INFORMATION:	JP 2000-240059	20000808
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	SUGHRUE, MION, ZINN, MACPEAK & SEAS, PLLC, 2100 Pennsylvania Avenue, N.W., Washington, DC, 20037	
NUMBER OF CLAIMS:	20	
EXEMPLARY CLAIM:	1	
LINE COUNT:	2260	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 398140-88-0P 398141-10-1P

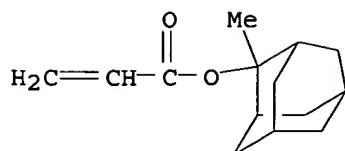
(resin; deep UV photofabrication pos. photoresist compn. contg.)

RN 398140-88-0 USPATFULL

CN Bicyclo[2.2.1]hept-5-ene-2-carboxylic acid, 1,1-dimethylethyl ester,
polymer with 2,5-furandione, hexahydro-2-oxo-3,5-methano-2H-
cyclopenta[b]furan-6-yl 2-propenoate and 2-methyltricyclo[3.3.1.1^{3,7}]dec-
2-yl 2-propenoate (9CI) (CA INDEX NAME)

CM 1

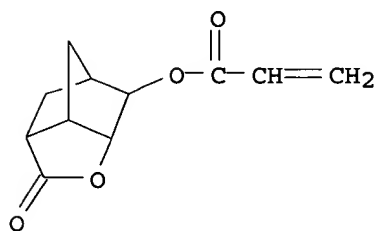
CRN 249562-06-9
CMF C14 H20 O2



CM 2

CRN 242129-35-7

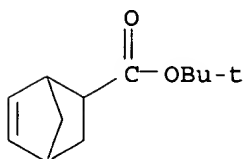
CMF C11 H12 O4



CM 3

CRN 154970-45-3

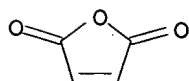
CMF C12 H18 O2



CM 4

CRN 108-31-6

CMF C4 H2 O3



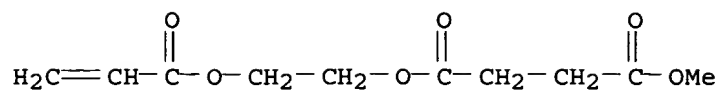
RN 398141-10-1 USPATFULL

CN Butanedioic acid, methyl 2-[(1-oxo-2-propenyl)oxy]ethyl ester, polymer
with 1,1-dimethylethyl bicyclo[2.2.1]hept-5-ene-2-carboxylate,
2,5-furandione and 5-oxo-4-oxatricyclo[4.3.1.1^{3,8}]undec-1-yl
2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 398141-09-8

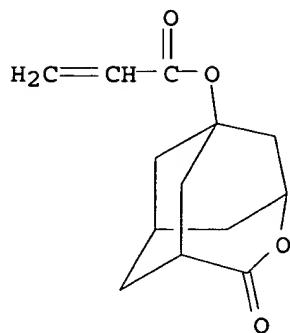
CMF C10 H14 O6



CM 2

CRN 265999-35-7

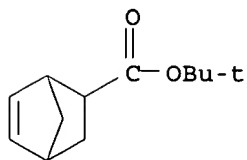
CMF C13 H16 O4



CM 3

CRN 154970-45-3

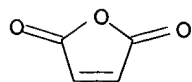
CMF C12 H18 O2



CM 4

CRN 108-31-6

CMF C4 H2 O3



AB A positive photosensitive composition comprises: (A) a compound generating an acid upon irradiation with one of an actinic ray and radiation; (B) a resin containing a monocyclic or polycyclic alicyclic hydrocarbon structure and increasing the solubility to an alkali developer by the action of an acid; and (C) an onium salt of carboxylic acid.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L14 ANSWER 13 OF 16 USPATFULL

ACCESSION NUMBER: 2002:16789 USPATFULL

TITLE: Radiation-sensitive resin composition
 INVENTOR(S): Nishimura, Yukio, Yokkaichi, JAPAN
 Yamahara, Noboru, Yokkaichi, JAPAN
 Yamamoto, Masafumi, Yokkaichi, JAPAN
 Kajita, Toru, Yokkaichi, JAPAN
 Shimokawa, Tsutomu, Suzuka, JAPAN
 Ito, Hiroshi, San Jose, CA, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2002009668	A1	20020124
APPLICATION INFO.:	US 2001-879894	A1	20010614 (9)

	NUMBER	DATE
PRIORITY INFORMATION:	JP 2000-182297	20000616
	JP 2001-108824	20010406
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	Supervisor, Patent Prosecution Services, PIPER MARBURY RUDNICK & WOLFE LLP, 1200 Nineteenth Street, N.W., Washington, DC, 20036-2412	
NUMBER OF CLAIMS:	16	
EXEMPLARY CLAIM:	1	
LINE COUNT:	2918	
CAS INDEXING IS AVAILABLE FOR THIS PATENT.		

IT 370099-14-2P

(acid-labile group-contg. resin for radiation-sensitive resist compn.)

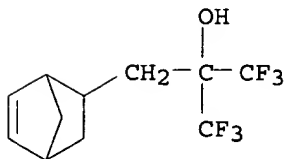
RN 370099-14-2 USPTFULL

CN Bicyclo[2.2.1]hept-5-ene-2-carboxylic acid, 1,1-dimethylethyl ester,
 polymer with .alpha.,.alpha.-bis(trifluoromethyl)bicyclo[2.2.1]hept-5-
 ene-2-ethanol (9CI) (CA INDEX NAME)

CM 1

CRN 196314-61-1

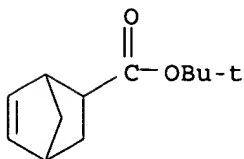
CMF C11 H12 F6 O



CM 2

CRN 154970-45-3

CMF C12 H18 O2



AB A radiation-sensitive resin composition comprising an acid-labile group-containing resin and a photoacid generator is disclosed. The resin

has a structure of the formula (1), ##STR1##

wherein R.sup.1 represents a hydrogen atom, a monovalent acid-labile group, an alkyl group having 1-6 carbon atoms which does not have an acid-labile group, or an alkylcarbonyl group having 2-7 carbon atoms which does not have an acid-labile group, X.sup.1 represents a linear or branched fluorinated alkyl group having 1-4 carbon atoms, and R.sup.2 represents a hydrogen atom, a linear or branched alkyl group having 1-10 carbon atoms, or a linear or branched fluorinated alkyl group having 1-10 carbon atoms. The resin composition exhibits high transmittance of radiation, high sensitivity, resolution, and pattern shape, and is useful as a chemically amplified resist in producing semiconductors at a high yield.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L14 ANSWER 14 OF 16 USPATFULL

ACCESSION NUMBER: 2002:239130 USPATFULL

TITLE: Modified polycyclic polymers

INVENTOR(S): Jayaraman, Saikumar, Twinsburg, OH, United States
Benedikt, George Martin, Solon, OH, United States
Rhodes, Larry Funderburk, Silver Lake, OH, United States

Vicari, Richard, Strongsville, OH, United States
Allen, Robert David, San Jose, CA, United States
DiPietro, Richard Anthony, San Jose, CA, United States
Sooriyakumaran, Ratnam, San Jose, CA, United States
Wallow, Thomas, Union City, CA, United States

PATENT ASSIGNEE(S): The B.F. Goodrich Company, Charlotte, NC, United States
(U.S. corporation)
International Business Machines Corp., Armonk, NY,
United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6451945	B1	20020917
APPLICATION INFO.:	US 1999-253499		19990219 (9)

	NUMBER	DATE
PRIORITY INFORMATION:	US 1998-75558P	19980223 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	GRANTED	
PRIMARY EXAMINER:	Moore, Margaret G.	
LEGAL REPRESENTATIVE:	Dunlap, Thoburn T., Hudak & Shunk Co., LPA	
NUMBER OF CLAIMS:	5	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	6 Drawing Figure(s); 6 Drawing Page(s)	
LINE COUNT:	1954	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 239137-09-8DP, hydrolyzed 239137-12-3DP, hydrolyzed
239137-14-5DP, imides with cyclohexylamine
(modified polymers having polycyclic side chains for photoresists with improved hydrophilicity)

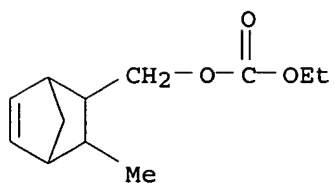
RN 239137-09-8 USPATFULL

CN 1,4:5,8-Dimethanonaphthalene-2-carboxylic acid, 1,2,3,4,4a,5,8,8a-octahydro-, ethyl ester, polymer with 1,1-dimethylethyl bicyclo[2.2.1]hept-5-ene-2-carboxylate, ethyl (3-methylbicyclo[2.2.1]hept-5-en-2-yl)methyl carbonate and trimethylsilyl bicyclo[2.2.1]hept-5-ene-2-carboxylate (9CI) (CA INDEX NAME)

CM 1

CRN 239137-00-9

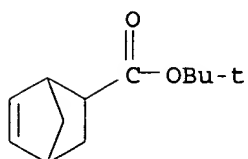
CMF C12 H18 O3



CM 2

CRN 154970-45-3

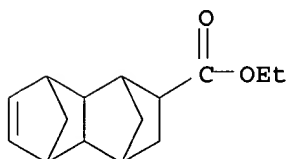
CMF C12 H18 O2



CM 3

CRN 61615-20-1

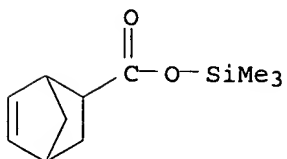
CMF C15 H20 O2



CM 4

CRN 56151-01-0

CMF C11 H18 O2 Si



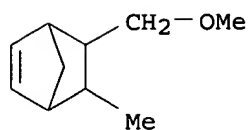
RN 239137-12-3 USPATFULL

CN Bicyclo[2.2.1]hept-5-ene-2-carboxylic acid, 1,1-dimethylethyl ester, polymer with ethyl (3-methylbicyclo[2.2.1]hept-5-en-2-yl)methyl carbonate, 5-(methoxymethyl)-6-methylbicyclo[2.2.1]hept-2-ene and trimethylsilyl bicyclo[2.2.1]hept-5-ene-2-carboxylate (9CI) (CA INDEX NAME)

CM 1

CRN 239137-11-2

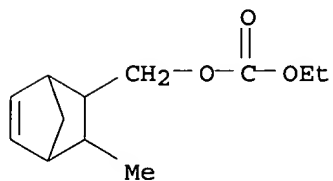
CMF C10 H16 O



CM 2

CRN 239137-00-9

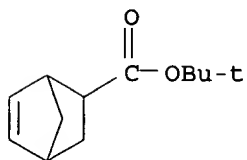
CMF C12 H18 O3



CM 3

CRN 154970-45-3

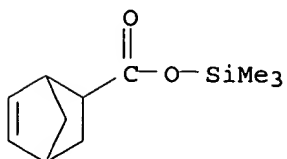
CMF C12 H18 O2



CM 4

CRN 56151-01-0

CMF C11 H18 O2 Si



RN 239137-14-5 USPATFULL

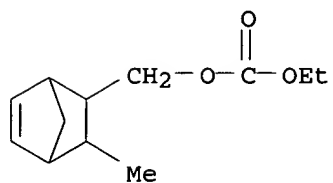
CN 1,4:5,8-Dimethanonaphthalene-2-carboxylic acid, 1,2,3,4,4a,5,8,8a-octahydro-, ethyl ester, polymer with 1,1-dimethylethyl bicyclo[2.2.1]hept-5-ene-2-carboxylate, ethyl (3-methylbicyclo[2.2.1]hept-5-en-2-yl)methyl carbonate and

rel-(3aR,4S,7R,7aS)-3a,4,7,7a-tetrahydro-4,7-methanoisobenzofuran-1,3-dione (9CI) (CA INDEX NAME)

CM 1

CRN 239137-00-9

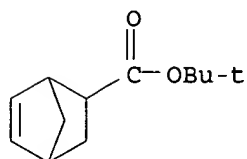
CMF C12 H18 O3



CM 2

CRN 154970-45-3

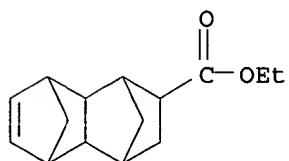
CMF C12 H18 O2



CM 3

CRN 61615-20-1

CMF C15 H20 O2



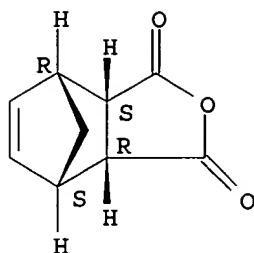
CM 4

CRN 129-64-6

CMF C9 H8 O3

CDES *

Relative stereochemistry.



AB The present invention relates to cyclic polymers and their use in photolithographic applications. The cyclic polymers contain a pendant acid labile functional group and a functional group containing a protected hydroxyl moiety. The polymers are post modified by deprotecting the pendant hydroxyl moiety and reacting the deprotected hydroxyl containing moiety with a coreactant. The post-functionalized polymers find application in chemically amplified photoresist compositions.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L14 ANSWER 15 OF 16 USPATFULL

ACCESSION NUMBER: 2001:71651 USPATFULL
 TITLE: Photoresist compositions comprising polycyclic polymers with acid labile pendant groups
 INVENTOR(S): Rhodes, Larry F, Silverlake, OH, United States
 Bell, Andrew, Lakewood, OH, United States
 Jayaraman, Saikumar, Cuyahoga Falls, OH, United States
 Lipian, John-Henry, Broadview Heights, OH, United States
 Goodall, Brian L., Akron, OH, United States
 Shick, Robert A., Strongsville, OH, United States
 PATENT ASSIGNEE(S): The B. F. Goodrich Company, Brecksville, OH, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6232417	B1	20010515
APPLICATION INFO.:	US 1997-928573		19970912 (8)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Wilson, Donald R.		
ASSISTANT EXAMINER:	Lu, Caixia		
LEGAL REPRESENTATIVE:	Dunlap, Thoburn T.		
NUMBER OF CLAIMS:	13		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	3 Drawing Figure(s); 3 Drawing Page(s)		
LINE COUNT:	7272		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 196805-15-9P

(prepn. and use in photoresist compns.)

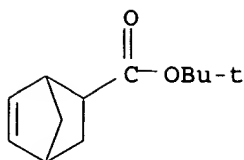
RN 196805-15-9 USPATFULL

CN Bicyclo[2.2.1]hept-5-ene-2-acetic acid, methyl ester, polymer with 1,1-dimethylethyl bicyclo[2.2.1]hept-5-ene-2-carboxylate (9CI) (CA INDEX NAME)

CM 1

CRN 154970-45-3

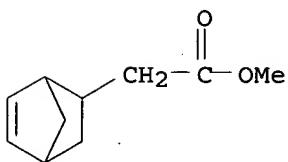
CMF C12 H18 O2



CM 2

CRN 20268-59-1

CMF C10 H14 O2



AB The present invention relates to a radiation sensitive photoresist composition comprising a photoacid initiator and a polycyclic polymer comprising repeating units that contain pendant acid labile groups. Upon exposure to an imaging radiation source the photoacid initiator generates an acid which cleaves the pendant acid labile groups effecting a polarity change in the polymer. The polymer is rendered soluble in an aqueous base in the areas exposed to the imaging source. The polymer repeating units are polymerized from polycyclic monomers in the presence of single or multicomponent catalyst systems containing a Group VIII metal

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L14 ANSWER 16 OF 16 USPATFULL

ACCESSION NUMBER: 2000:142066 USPATFULL

TITLE: Photoresist compositions comprising polycyclic polymers with acid labile pendant groups

INVENTOR(S): Goodall, Brian L., Akron, OH, United States
Jayaraman, Saikumar, Cuyahoga Falls, OH, United States
Shick, Robert A., Strongsville, OH, United States
Rhodes, Larry F., Silverlake, OH, United States

PATENT ASSIGNEE(S): The B. F. Goodrich Company, Richfield, OH, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6136499		20001024
APPLICATION INFO.:	US 1997-812418		19970306 (8)

	NUMBER	DATE
PRIORITY INFORMATION:	US 1996-25174P	19960307 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	Granted	
PRIMARY EXAMINER:	Weiner, Laura	
LEGAL REPRESENTATIVE:	Dunlap, Thoburn T.	
NUMBER OF CLAIMS:	12	
EXEMPLARY CLAIM:	1	
LINE COUNT:	2906	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 196805-15-9P

(prepn. and use in photoresist compns.)

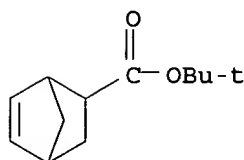
RN 196805-15-9 USPATFULL

CN Bicyclo[2.2.1]hept-5-ene-2-acetic acid, methyl ester, polymer with
1,1-dimethylethyl bicyclo[2.2.1]hept-5-ene-2-carboxylate (9CI) (CA
INDEX NAME)

CM 1

CRN 154970-45-3

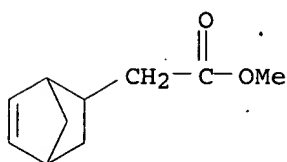
CMF C12 H18 O2



CM 2

CRN 20268-59-1

CMF C10 H14 O2



AB The present invention relates to a radiation sensitive photoresist composition comprising a photoacid initiator and a polycyclic polymer comprising repeating units that contain pendant acid labile groups. Upon exposure to an imaging radiation source the photoacid initiator generates an acid which cleaves the pendant acid labile groups effecting a polarity change in the polymer. The polymer is rendered soluble in an aqueous base in the areas exposed to the imaging source.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.